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(19) **United States**(12) **Patent Application Publication****Jones et al.**(10) **Pub. No.: US 2018/0082247 A1**(43) **Pub. Date: Mar. 22, 2018**(54) **ELECTROMAGNETIC PERMEABILITY  
THROUGH MODULAR BACKSPLASH**(52) **U.S. Cl.**CPC ..... **G06Q 10/087** (2013.01); **G06Q 30/0205**  
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21, 2016.**Publication Classification**(51) **Int. Cl.****G06Q 10/08** (2006.01)**G06Q 30/02** (2006.01)(57) **ABSTRACT**

Apparatuses, systems, and methods are provided herein useful to determining qualities associated with products presented for sale. In some embodiments, the system includes a transmitter located on a first side of a group of products, the transmitter configured to emit energy toward the group of products, and a receiver located on the first side, wherein the receiver is configured to receive a first portion of the energy and a second portion of the energy, wherein the first portion of the energy is reflected off of the group of products, wherein the second portion of the energy is reflected off of a surface located on a second side of the group of products, wherein the first portion of the energy and/or the second portion of the energy is used to estimate a quantity of items in the group of products and/or a type of items in the group of products.

